

### ABSTRACT

A high density of electrical interconnection together with well controlled electrical transmission characteristics, low emissivity from the cable and low susceptibility to external electromagnetic interference are obtained in a PET machine with an interconnection harness formed of a ribbon cable with an inner and outer shield. The inner shield together with alternate conductors of the ribbon cable provide a signal return and the outer shield provides an earth ground reducing the susceptibility of the conductors to external electrical noise and reducing emissions from the cable.

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